

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An image processing apparatus ~~for generating~~ configured to generate, when image data of motion picture is made r times in quantization coarseness upon increasing a quantizing parameter a predetermined unit amount, change amount data representative of the change amount of the quantizing parameter, the image processing apparatus comprising:

index data generating means for generating index data serving as an index of complexity of the image data; ~~and~~

change amount data acquiring means for defining a corresponding relationship between the index data and the change amount data such that, when the index data becomes r times, the change amount data is increased the unit amount, and for acquiring the change amount data corresponding to the index data generated by the index data generating means; and

quantizing parameter generating means for generating the quantizing parameter based on reference data defined based on a code amount assigned to the image data as a subject of coding and of the change amount data representative of the change amount of the quantizing parameter acquired by the change amount data acquiring means.

2. (Canceled).

3. (Currently Amended) An image processing apparatus according to claim 1, wherein the index data generating means computes, based on a plurality of second blocks as a unit defined within a first block of the image data, dispersion data representative of a dispersion of pixel data within the plurality of second block blocks, and ~~generates~~ generate

the index data by using a minimal one of the dispersion data among the dispersion data computed on the plurality of second blocks.

4. (Currently Amended) An image processing apparatus according to claim 3, wherein the index data generating means computes the dispersion data by cumulating values depending upon a difference between pixel data within the plurality of second ~~block~~ blocks and a mean value of all pixel data within the plurality of second ~~block~~ blocks.

5. (Currently Amended) An image processing apparatus according to claim 3, wherein the index data generating means computes the dispersion data based on the plurality of second ~~block~~ blocks as a unit greater in size than a block serving as a unit of making an orthogonal transform on the image data.

6. (Original) An image processing apparatus according to claim 1, wherein, when the image data is structured by a first field and a second field, the index data generating means generates the index data respectively on the first field and the second field, the change amount data acquiring means acquiring the change amount data on the respective first and second fields based on the index data generated by the index data generating means.

7. (Original) An image processing apparatus according to claim 3, wherein the index data generating means computes the dispersion data on the plurality of second blocks defined within a plurality of the first blocks when the image data is interlaced scanning image data.

8. (Currently Amended) An image processing apparatus according to claim ~~[[6]]~~ 3, wherein the index data generating means computes the dispersion data on the plurality of

second blocks including ~~[[the]]~~ a second block corresponding to field coding and ~~[[the]]~~ a second block corresponding to frame coding.

9. (Currently Amended) An image processing method for generating, when image data of motion picture is made  $r$  times in quantization coarseness upon increasing a quantizing parameter a predetermined unit amount, change amount data representative of the change amount of the quantizing parameter, the image processing method comprising:

a first process of generating index data serving as an index of complexity of the image data; ~~and~~

a second process of defining a corresponding relationship between the index data and the change amount data such that, when the index data becomes  $r$  times, the change amount data is increased the unit amount, and of acquiring the change amount data corresponding to the index data generated in the first process; and

a third process of generating the quantizing parameter based on reference data defined based on a code amount assigned to the image data as a subject of coding and of the change amount data representative of the change amount of the quantizing parameter acquired in the second process.

10. (Canceled).

11. (Currently Amended) A coding apparatus comprising:

index data generating means for generating index data serving as an index of complexity of image data;

change amount data acquiring means for defining a corresponding relationship between the index data and ~~[[the]]~~ change amount data representative of a change amount of

a quantizing parameter such that, when the index data becomes  $r$  times, the change amount data is increased ~~[[the]]~~ a unit amount, and for acquiring the change amount data corresponding to the index data generated by the index data generating means;

quantizing parameter generating means for generating the quantizing parameter based on reference data defined based on a code amount assigned to the image data as a subject of coding and of the change amount data representative of the change amount of the quantizing parameter acquired by the change amount data acquiring means;

an orthogonal transform circuit ~~for~~ configured to orthogonally transforming transform image data;

a quantizing circuit ~~for quantizing~~ configured to quantize image data orthogonally transformed by the orthogonal transform circuit;

a quantizing control circuit ~~for controlling~~ configured to control quantization by the quantizing circuit such that quantization coarseness is made  $r$  times as the quantizing parameter is increased a predetermined unit amount, based on the quantizing parameter generated by the quantizing parameter generating means;

a motion predicting/compensating circuit ~~for generating~~ configured to generate reference image data and a motion vector, based on image data quantized by the quantizing circuit; and

a coding circuit ~~for coding~~ configured to code image data quantized by the quantizing circuit.

12. (Currently Amended) An image processing apparatus ~~for generating~~ configured to generate, when image data of motion picture is made  $r$  times in quantization coarseness upon increasing a quantizing parameter a predetermined unit amount, change amount data

representative of the change amount of the quantizing parameter, the image processing apparatus comprising:

an activity computing circuit configured to generate index data serving as an index of complexity of the image data; ~~and~~

a  $[[\Delta Q]]$  change amount computing circuit configured to define a corresponding relationship between the index data and the change amount data such that, when the index data becomes  $r$  times, the change amount data is increased the unit amount, and to acquire the change amount data corresponding to the index data generated by the activity computing circuit; and

a quantizing parameter generator configured to generate the quantizing parameter based on reference data defined based on a code amount assigned to the image data as a subject of coding and of the change amount data representative of the change amount of the quantizing parameter acquired by the change amount computing circuit.

13. (Canceled).

14. (Currently Amended) An image processing apparatus according to claim 12, wherein the activity computing circuit is configured to compute ~~computes~~, based on a plurality of second blocks as a unit defined within a first block of the image data, dispersion data representative of a dispersion of pixel data within the plurality of second block blocks, and ~~generates~~ generate the index data by using a minimal one of the dispersion data among the dispersion data computed on the plurality of second blocks.

15. (Currently Amended) An image processing apparatus according to claim 14, wherein the activity computing circuit is configured to compute ~~computes~~ the dispersion data

by cumulating values depending upon a difference between pixel data within the plurality of second ~~block~~ blocks and a mean value of all pixel data within the plurality of second ~~block~~ blocks.

16. (Currently Amended) An image processing apparatus according to claim 14, wherein the activity computing circuit is configured to compute ~~computes~~ the dispersion data based on the plurality of second ~~block~~ blocks as a unit greater in size than a block serving as a unit of making an orthogonal transform on the image data.

17. (Currently Amended) An image processing apparatus according to claim 12, wherein, when the image data is structured by a first field and a second field, the activity computing circuit is configured to generate ~~generates~~ the index data respectively on the first field and the second field, the  $[[\Delta Q]]$  change amount computing circuit ~~acquiring is~~ configured to acquire the change amount data on the respective first and second fields based on the index data generated by the activity computing circuit.

18. (Currently Amended) An image processing apparatus according to claim 14, wherein the activity computing circuit is configured to compute ~~computes~~ the dispersion data on the plurality of second blocks defined within a plurality of the first blocks when the image data is interlaced scanning image data.

19. (Currently Amended) An image processing apparatus according to claim  $[[17]]$  14, wherein the activity computing circuit is configured to compute ~~computes~~ the dispersion data on the plurality of second blocks including  $[[the]]$  a second block corresponding to field coding and  $[[the]]$  a second block corresponding to frame coding.

20. (Currently Amended) A coding apparatus comprising:

an activity computing circuit configured to generate index data serving as an index of complexity of image data;

a  $[[\Delta Q]]$  change amount computing circuit configured to define a corresponding relationship between the index data and  $[[the]]$  change amount data representative of a change amount of a quantizing parameter such that, when the index data becomes  $r$  times, the change amount data is increased  $[[the]]$  a unit amount, and to acquire the change amount data corresponding to the index data generated by the activity computing circuit;

a quantizing parameter generator configured to generate the quantizing parameter based on reference data defined based on a code amount assigned to the image data as a subject of coding and of the change amount data representative of the change amount of the quantizing parameter acquired by the  $[[\Delta Q]]$  change amount computing circuit;

an orthogonal transform circuit ~~for~~ configured to orthogonally ~~transforming~~ transform image data;

a quantizing circuit ~~for quantizing~~ configured to quantize image data orthogonally transformed by the orthogonal transform circuit;

a quantizing control circuit ~~for controlling~~ configured to control quantization by the quantizing circuit such that quantization coarseness is made  $r$  times as the quantizing parameter is increased a predetermined unit amount, based on the quantizing parameter generated by the quantizing parameter generator;

a motion predicting/compensating circuit ~~for generating~~ configured to generate reference image data and a motion vector, based on image data quantized by the quantizing circuit; and

a coding circuit for coding configured to code image data quantized by the quantizing circuit.